

Date: Fri, 2 Jul 93 12:52:17 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #813
To: Info-Hams

Info-Hams Digest Fri, 2 Jul 93 Volume 93 : Issue 813

Today's Topics:

 * SpaceNews 05-Jul-93 *
 20m hot on FD
 Closed Autopatches
 DXCC pins
 Field Day
 Help needed to make microstrip structures
 Looking for MARA members
 ORBS\$184.2liners
 Questions on DXCC Award
 rec.radio.amateur.atv? pointers?
 RG-58 coax cable vs. RG-223 (2 msgs)
 What we learned at Field Day

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 2 Jul 93 17:36:50 GMT
From: news-mail-gateway@ucsd.edu
Subject: * SpaceNews 05-Jul-93 *
To: info-hams@ucsd.edu

SB NEWS @ AMSAT \$SPC0705
* SpaceNews 05-Jul-93 *

BID: \$SPC0705

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SpaceNews
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MONDAY JULY 5, 1993

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

* STS-57/SAREX NEWS *

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QSL cards are available for all those who heard or made radio contact with the SAREX package carried on shuttle Endeavour during mission STS-57.

QSL cards or SWL reports should be directed to the following address:

STS-57 QSL
C/O Miami County ARC
P.O. Box 214
Troy, OH 45373

Include a self addressed stamped envelope. Non-US stations should include the appropriate number of IRCs with your QSL or a \$0.50 U.S. stamp on the envelope.

Report should include callsign, whether worked/heard, date, UTC time, mode, frequency, and QSO number for packet connects.

* SETI NEWS *

=====

A search for aliens in outer space has detected 164 mysterious radio signals that must be studied to learn if they come from natural causes or from E.T. trying to phone Earth, scientists reported on June 2, 1993. "At this point, we have no concrete evidence for signals from intelligent aliens. We have some possibilities we're going to investigate further," said Stuart Bowyer, head of the search and an astronomer at the University of California, Berkeley. Detection of the 164 unexplained radio signals since the latest, most sophisticated phase of the \$400,000 search started 14 months ago was announced during the American Astronomical Society's annual meeting.

"If one of these candidate signals is really a signal from an extraterrestrial civilization, it's likely we will be able to confirm it within a year," said researcher Dan Werthimer. "But it's very unlikely that any of these candidates are really from extraterrestrials. It's much more likely that they are human-made interference or natural noise sources."

Since the 1960s, dozens of searches have been conducted for radio signals leaking into space from broadcasts or radar used by any advanced societies that might exist on distant worlds.

Bowyer and Werthimer said the UC-Berkeley search, which uses a 1,000 foot wide radio telescope antenna dish in Puerto Rico, is more powerful and sensitive than any other, analyzing 30 trillion signals in the last 14 months alone.

A \$100 million, 10-year search by the National Aeronautics and Space Administration eventually will be more powerful once it is running full time and with more advanced equipment. That search started Columbus Day, using antennas in Puerto Rico and California. Several other searches for radio signals from intelligent alien societies also have detected radio signals that couldn't immediately be explained. But all of them either were never heard again or were found to be caused by natural or human sources.

Werthimer said some of the yet-unexplained signals have come from the same locations in the sky a month or more after they were first detected. "Our most interesting candidates are signals that are still there when the telescope comes back to a particular spot," he said. That finding is "very interesting" because a radio signal that appears fixed over time "has to be from beyond our solar system," although it could be created naturally, said Edward Olsen, a scientist working on NASA's search at Jet Propulsion Laboratory in Pasadena. But Werthimer said some such signals may come from within the solar system, generated by two sources that appear in the same part of the sky.

[Story from the Associated Press News Service]

★ FO-20 FIELD DAY REPORT ★

=====

FO-20's switch to Mode JA during Field Day saw good activity with a number of European stations making their first contacts ever on the satellite.

Graham, G8DMR, reported that from his location in IO91LG, near London, he had contact with stations in DG, DL, DK, OH, G, IV, OZ, HB9. Towards the close of some passes, contacts were possible with N2, VO and W1AW. Graham also commented that working sideband on FO-20 makes one realize just how easy it is working AO-13.

★ THANKS! ★

=====

Thanks to all those who sent messages of appreciation regarding SpaceNews, especially:

NW3V YT7MPB G8DMR

* FEEDBACK/INPUT WELCOMED *

=====

Mail to SpaceNews should be directed to the editor (John, KD2BD) via any of the following paths:

FAX : 1-908-747-7107
UUCP : ...catfish.ocpt.ccur.com!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z.NJ.USA.NA
INTERNET : kd2bd@ka2qhd.ocpt.ccur.com -or- kd2bd@amsat.org

MAIL : John A. Magliacane, KD2BD
Department of Engineering and Technology
Advanced Technology Center
Brookdale Community College
Lincroft, New Jersey 07738
U.S.A.

<<= SpaceNews: The first amateur newsletter read in space! -=>>

/EX

Date: Fri, 2 Jul 93 17:05:41 GMT
From: tijc02!eri316@uunet.uu.net
Subject: 20m hot on FD
To: info-hams@ucsd.edu

Date: 2 Jul 93 17:15:49 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!
pitt.edu!dsinc!netnews.upenn.edu!mipg.upenn.edu!yee@network.UCSD.EDU
Subject: Closed Autopatches
To: info-hams@ucsd.edu

>Conway, why are you so opposed to the club having a copy of your license?
>What are you afraid of? There's no personal information on the license
>that would seem to require confidentiality...

Several people have emailed me on this point so I guess I should post the

answer.

Another club actually does have a copy of my license. In that case, there was a distinct reason why the club needed the license. (this is a key point which I will elaborate on shortly). In this case, the operation of the club station was not at issue.

I concur that the information on the license is public domain and that it is available on any callsign server.

The reason I refused to give the license is a matter of personal politics. It is up to the club to justify why they need the license- not for me to justify why I should not give it. Since they did not have a reason to need the information, I consider the request a violation of my privacy. Yes, they could obtain the same information from other sources but that does not justify why I should willingly participate in an action which is a violation of my rights. In the other club, there was a distinct reason- they wanted it for the purposes of operating the club station. I was interested in operating this station and I agreed. In this case, no such reason exists.

--

| | | |
|------------------------|--|---|
| 411 Blockley Hall | | Conway Yee, N2JWQ |
| 418 Service Drive | | yee@ming.mipg.upenn.edu (preferred) |
| Philadelphia, PA 19104 | | cy5@cunixa.cc.columbia.edu (forwarded to above) |
| (215) 662-6780 | | |

Date: 2 Jul 93 12:13:37 est
From: psinntp!arrl.org@uunet.uu.net
Subject: DXCC pins
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, bbattles@arrl.org (Brian Battles WS10) writes:

>PS I enjoy flaunting my Clean Sweep coffee mug around HQ--raises a lotta
>eyebrows on the big DX/contest weenies who work here! 8-)

Yeah, my certificate for working ZA via moonbounce on 160 almost
got as many laughs...

WJ1Z!

| | | |
|--|--|--------------------------|
| David Newkirk, Senior Asst Tech Editor | | voice: 203-666-1541 X280 |
| American Radio Relay League | | fax: 203-665-7531 |
| 225 Main St, Newington CT 06111 USA | | net: dnewkirk@arrl.org |

Date: Fri, 2 Jul 1993 19:08:28 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!sdd.hp.com!col.hp.com!news.dtc.hp.com!
srgenprp!alanb@network.UCSD.EDU
Subject: Field Day
To: info-hams@ucsd.edu

Derek Wills (oo7@emx.cc.utexas.edu) wrote:

: One thing I had forgotten that people do a lot in FD (cw) is reply to
: "CQ FD de W1ABC" with "W1ABC de W9XYZ" or even "W1ABC W1ABC de W9XYZ",
: as against just sending "W9XYZ". In DX (and other domestic) contests
: people just send their call once and that's it. Sending the other
: station's call as well slows down the FD rate even more than people using
: long callsigns on CW.

: I charitably put this down to people who are new to contesting, ...

Field Day is different from a DX contest, in two respects. First, there
are no true pileups because no station is more desirable than another.
When there is lots of interference, it can be hard for the CQ'ing
station to determine who you are replying to if you just send "N1AL"
rather than "W6ABC DE N1AL".

Secondly, the skill level of FD operators is lower than in other contests.
Many of them won't come back if you just send your call. What I did in
FD was to send both callsigns if the other station sounded like a
neophyte or if QRM was bad, and just send my call otherwise.

AL N1AL

Date: Fri, 2 Jul 1993 15:29:22 GMT
From: amdcad!amdcl2!brian@decwrl.dec.com
Subject: Help needed to make microstrip structures
To: info-hams@ucsd.edu

(Glenn Elmore) writes:

> Richard B. Christensen (richard@alaska.et.byu.edu) wrote:

>

> : Has anyone had success in building 50 ohm microstrip lines. I have
> : tried several times, but without success. One of the problems I have
> : had is that different reference books give different equations and
> : different widths for the copper traces.

>

> Richard
>
> Try .110" wide traces on 1/16" standard fiberglass/epoxy board
> material. This should get you pretty close to 50 ohms. Different board
> cladding thickness, dielectric thickness and dielectric constant will
> give differing results. That is probably the discrepancy you are seeing
> in the references.

Another source of error to watch out for is the equations themselves. The differential equation for L and C values of a microstrip has no closed form solution unless certain simplifying assumptions are made. For PC board traces, the interesting parameters are width (w), thickness (t), height above plane (h) and dielectric constant (epsilon). Depending on the relative sizes of these, the closed form approximation can be quite different. (Hence the different equations you find in books). When the relative sizes don't fit within the simplifying assumptions, you'll either need a numeric solution or you'll have to go for trial and error.

Board vendors who specialize in controlled impedance PC boards have a series of test structures (mostly lines of various widths) that they use to calibrate their processing. If you have reasonably good control over your board etching process, a supply of controlled quality board material and a way to measure trace impedance (a TDR?), this is the "low computation" way to go.

Brian McMinn N5PSS brian.mcminn@amd.com

Date: 2 Jul 93 15:57:02 GMT
From: news-mail-gateway@ucsd.edu
Subject: Looking for MARA members
To: info-hams@ucsd.edu

I'm looking for members of the Mercury Amateur Radio Association (MARA) who are here on the net. I recently sent out a packet radio bulletin asking for members to respond and received quite a few replies. I'm interested in establishing a national MARA packet/Internet network for rapid dissemination of information.

Is there a MARA packet e-mail list? If not, I would like to establish one. No where on the MARA membership application is there a place for ones packet e-mail address. Looking forward to hearing from you. Perhaps someone from Headquarters is here on the net. 73s.

Bob Taggart (Carrollton Ward, Silver Spring, MD Stake of the CJCLDS)
Internet: taggartr@nic.ddn.mil
amateur: k8rya@wb3v.md.usa.na

The Ham What Am

Date: 2 Jul 93 19:53:02 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$184.2liners
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-184.N
2Line Orbital Elements 184.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM N3FKV HEWITT, TX July 3, 1993
BID: \$ORBS-184.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJ KKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

A0-10

1 14129U 83 58 B 93180.76307393 .00000034 00000-0 99999-4 0 43
2 14129 27.0523 18.2544 6022384 93.5736 332.8061 2.05880488 75525

U0-11

1 14781U 84 21 B 93180.08212996 .00000275 00000-0 50965-4 0 4228
2 14781 97.8087 205.9493 0011800 325.6653 34.3789 14.69015198498463

RS-10/11

1 18129U 87 54 A 93179.60307149 .00000088 00000-0 89554-4 0 6273
2 18129 82.9253 230.1730 0010264 290.3597 69.6441 13.72319367301417

A0-13

1 19216U 88 51 B 93182.31033537 -.00000127 00000-0 99999-4 0 6143
2 19216 58.0476 308.3919 7229145 318.4621 4.8900 2.09723320 38650

F0-20

1 20480U 90 13 C 93177.60753357 -.00000004 00000-0 19647-4 0 4496
2 20480 99.0337 32.0095 0541600 65.3046 300.3442 12.83220260158529

A0-21

1 21087U 91 6 A 93181.73366042 .00000085 00000-0 82656-4 0 7999
2 21087 82.9410 42.8069 0035437 346.4704 13.5468 13.74521037121300

RS-12/13

1 21089U 91 7 A 93179.26235602 .00000023 00000-0 17649-4 0 4083
2 21089 82.9214 273.9003 0030785 15.3636 344.8447 13.74023675120048

U0-14

1 20437U 90 5 B 93182.20971269 .00000089 00000-0 42559-4 0 7566
2 20437 98.6116 266.3259 0011387 137.8139 222.3924 14.29779930179433

AO-16

1 20439U 90 5 D 93182.20920941 .000000064 00000-0 32758-4 0 5616
2 20439 98.6204 267.2224 0011700 138.8191 221.3877 14.29838853179440

DO-17

1 20440U 90 5 E 93182.19733455 .000000070 00000-0 34778-4 0 5631
2 20440 98.6207 267.4254 0011569 137.7846 222.4232 14.29974855179459

WO-18

1 20441U 90 5 F 93182.09704417 .000000064 00000-0 32864-4 0 5656
2 20441 98.6204 267.3487 0012118 139.6471 220.5611 14.29954643179442

LO-19

1 20442U 90 5 G 93182.72776255 .000000054 00000-0 28772-4 0 5625
2 20442 98.6202 268.1509 0012392 136.8810 223.3349 14.30044283179547

UO-22

1 21575U 91 50 B 93181.75491313 .000000090 00000-0 37451-4 0 2615
2 21575 98.4723 257.6484 0007068 262.5900 97.4484 14.36835221102617

KO-23

1 22077U 92 52 B 93170.84137870 .000000000 00000-0 99999-4 0 1052
2 22077 66.0771 318.6262 0004589 184.8593 175.2383 12.86278854 40182

ARSENE

1 22654U 93 56 B 93145.000000000 .000000000 00000-0 00000-0 0 0085
2 22654 1.0950 130.8800 2939760 137.2680 355.5380 1.42273540 242

NOAA-9

1 15427U 84123 A 93182.58892745 .000000068 00000-0 46223-4 0 4000
2 15427 99.0992 223.0196 0015791 125.3671 234.8968 14.13527224440818

NOAA-10

1 16969U 86 73 A 93182.74651229 .000000152 00000-0 73149-4 0 2421
2 16969 98.5157 197.3264 0012081 275.0146 84.9662 14.24816659352705

MET-2/17

1 18820U 88 5 A 93179.53392611 .000000036 00000-0 26794-4 0 8731
2 18820 82.5425 189.8915 0017812 90.0109 270.3093 13.84687227273415

MET-3/2

1 19336U 88 64 A 93179.58783045 .000000043 00000-0 99999-4 0 455
2 19336 82.5407 213.8826 0018497 63.7733 296.5289 13.16959686236712

NOAA-11

1 19531U 88 89 A 93182.82815629 .000000155 00000-0 93180-4 0 1501
2 19531 99.1327 158.9119 0012818 40.5520 319.6627 14.12891910245744

MET-2/18

1 19851U 89 18 A 93176.10333338 .000000082 00000-0 68213-4 0 8106
2 19851 82.5198 68.6169 0013855 142.9932 217.2187 13.84338001218287

MET-3/3

1 20305U 89 86 A 93177.99926999 .000000043 00000-0 99999-4 0 7185
2 20305 82.5531 157.9524 0017135 87.7200 272.5856 13.16021137176396

MET-2/19

1 20670U 90 57 A 93175.99726086 .000000026 00000-0 18325-4 0 5625
2 20670 82.5460 132.1866 0017407 66.4284 293.8699 13.84176455151207

FY-1/2

1 20788U 90 81 A 93182.75340322 -.000000274 00000-0 -17042-3 0 5866
2 20788 98.8676 208.6561 0014590 266.8468 93.1042 14.01312528144621

MET-2/20

1 20826U 90 86 A 93175.62664085 .000000085 00000-0 72193-4 0 5673
2 20826 82.5254 70.4760 0014089 336.9160 23.1361 13.83552478138318

MET-3/4

1 21232U 91 30 A 93176.70628427 .000000043 00000-0 99999-4 0 3670
2 21232 82.5446 61.7136 0019361 10.7258 349.4274 13.16823632104449

NOAA-12

1 21263U 91 32 A 93182.51892282 .000000217 00000-0 11486-3 0 6045
2 21263 98.6552 212.3429 0012953 167.7981 192.3517 14.22280263110687

MET-3/5

1 21655U 91 56 A 93180.05301618 .000000043 00000-0 99999-4 0 4334
2 21655 82.5529 6.1350 0014263 3.3054 356.8159 13.16822454 89985

MIR

1 16609U 86 17 A 93182.41837443 .000008705 00000-0 11775-3 0 1571
2 16609 51.6185 148.0413 0005466 150.9423 209.1917 15.58595854421355

HUBBLE

1 20580U 90 37 B 93181.72809917 .00001100 00000-0 96804-4 0 1321
2 20580 28.4706 336.9918 0004935 188.2908 171.7661 14.92740933173541

GRO

1 21225U 91 27 B 93182.06445611 .00022508 00000-0 15384-3 0 9307
2 21225 28.4607 195.3995 0005478 80.4223 279.6910 15.73152692 2305

TUBSAT

1 21577U 91 50 D 93182.15943833 -.000000028 00000-0 -25680-5 0 2616
2 21577 98.4725 257.6119 0005354 263.2513 96.8066 14.36379160102647

SARA

1 21578U 91 50 E 93181.24556157 .000000399 00000-0 14441-3 0 4336
2 21578 98.4777 258.4061 0004193 271.4904 88.5804 14.38459659102603

UARS

1 21701U 91 63 B 93180.90809607 -.000000839 00000-0 -62477-4 0 2490
2 21701 56.9829 130.4931 0005121 81.4948 278.6647 14.96666224 98201

FREJA

1 22161U 92 64 A 93179.28932962 .000000103 00000-0 72703-4 0 1374
2 22161 62.9994 107.6813 0771816 283.8039 67.8306 13.21649332 35026

/EX

Date: Fri, 2 Jul 1993 17:04:25 GMT

From: usc!howland.reston.ans.net!noc.near.net!squam.banyan.com!banyan.com!
dts@network.UCSD.EDU

Subject: Questions on DXCC Award

To: info-hams@ucsd.edu

In article <20ukld\$u4@usenet.INS.CWRU.Edu>, rab@hal.cwru.edu (Roger Bielefeld)
writes:

|> Recently I received a bunch of QSL cards from the bureau and
|> (by my count) went over the 100 mark. I submitted them for

|> field checking for DXCC and was told that cards from the former
 |> Soviet republics can not be field checked. This supposedly is
 |> a change that became effective 1 January 1993.
 |>
 |> My cards that fall into this category are
 |>
 |> UA4LFR Russia 17-Sep-91
 |> UX1A Russia 16-Feb-92
 |> RC2CB Byelorussia 13-Sep-91
 |> R040A Moldavia 11-Jan-92
 |> UF6FAL Georgia 21-Mar-92
 |> RY1I Ukraine 13-Dec-92
 |>
 |> Can someone give me the complete story on this?
 |>
 |> Also, can someone post the current information on which countries
 |> are field-checkable and which are not? Apparently, the information
 |> in the Fourth Edition of the ARRL Operating Manual is out-of-date
 |> and I'm wondering if my cards from F00CI, YX0AI, 5U7M, C9RJJ, etc
 |> are now eligible for field checking.
 |>
 |> Thanks and 73,
 |> Roger AA8DV
 |>
 |>

Buy a new copy of the DXCC countries list from the ARRL. The new info is there.
 It is basically the same info as in the back of the operating manual, only
 up-to-date.

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-----
Daniel Senie                   Internet:     dts@questar.banyan.com
Banyan Systems, Inc.         CompuServe:    74176,1347
508-898-1188                 Packet Radio: N1JEB@WA1PHY.MA
-----
```

Date: Fri, 2 Jul 1993 18:19:59 GMT
 From: usc!howland.reston.ans.net!darwin.sura.net!sgiblab!a2i!
 davidj@network.UCSD.EDU
 Subject: rec.radio.amateur.atv? pointers?
 To: info-hams@ucsd.edu

Looking for pointers to internet discussions/info sites/
 usenet groups on atv. CQ TV?

73

David WA6NMF

--

David Josephson <david@josephson.com>

Date: Fri, 2 Jul 1993 17:17:19 GMT
From: swrinde!sdd.hp.com!hp-cv!hp-pcd!hpcvsnz!tomb@network.UCSD.EDU
Subject: RG-58 coax cable vs. RG-223
To: info-hams@ucsd.edu

J.D. Cronin (jdc3538@ultb.isc.rit.edu) wrote:

: What is the difference between RG-58 and RG-223? Both are 50 ohms,
: but RG-223 costs much more. RG-223 has more capacitance per foot,
: so isn't it more lossy? Unfortunately, the ARRL antenna book does
: not list the loss in db/100 ft for RG-223.

Huh? My reference book lists both at 28.5pF/foot. Expect this for
cables of the same impedance using the same insulation; it's pretty
much a fact of life (unless the inner conductor is coiled to make
a delay line).

I'd expect slightly lower loss in the 223 because its inner
conductor is solid instead of stranded, and because it's silver
plated instead of tinned. For a discussion about how the
stranded center conductor increases loss, see "RF Design"
magazine of a bit over a year ago for an article, I think
written by a fellow from Andrews Cable. It's a small-
percentage effect.

Date: Fri, 2 Jul 1993 17:33:45 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!sdd.hp.com!hp-cv!hp-pcd!hpcvsnz!
tomb@network.UCSD.EDU
Subject: RG-58 coax cable vs. RG-223
To: info-hams@ucsd.edu

Tom Bruhns (tomb@lsid.hp.com) (that's me) wrote:

: J.D. Cronin (jdc3538@ultb.isc.rit.edu) wrote:

: : What is the difference between RG-58 and RG-223? Both are 50 ohms,
: : but RG-223 costs much more. RG-223 has more capacitance per foot,
: : so isn't it more lossy? Unfortunately, the ARRL antenna book does
: : not list the loss in db/100 ft for RG-223.

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: much a fact of life (unless the inner conductor is coiled to make
: a delay line).

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: conductor is solid instead of stranded, and because it's silver
: plated instead of tinned. For a discussion about how the
: stranded center conductor increases loss, see "RF Design"
: magazine of a bit over a year ago for an article, I think
: written by a fellow from Andrews Cable. It's a small-
: percentage effect.

Actually, I was thinking RG-58C/U when I wrote about the stranded
center conductor. But that notwithstanding, I expect the losses
to be slightly less in the 223. This is also what "Reference
Data for Radio Engineers" lists in its "attenuation of cables"
graph.

Date: 2 Jul 93 15:30:20 GMT
From: swrinde!gatech!pitt.edu!hpb.cis.pitt.edu!hpb@network.UCSD.EDU
Subject: What we learned at Field Day
To: info-hams@ucsd.edu

Field Day is probably the one event in the year at which you learn
the most under real world conditions. Here's what we learned at Pitt
this year during the Panther Amateur Radio Club's FD:

* Generators...who needs 'em! Due to unforeseen circumstances, the
availability of our FD generator vanished a few days before the event.
Fortunately, our club owns a huge Sears Die Hard marine battery. This
beast weighs 70 pounds and is rated at 120 AH!. In addition, several
club members own some marine-grade solar panels. So rather than despair
over the lack of a generator, we charged the battery to capacity before
FD, and attached about 30 watts of solar panels to it.

Our plan was to operate an IC-751A at 50 watts for the duration of
the event. We calculated that even if there was no sun at all, we could
probably complete the entire contest. Just in case, we had a 25 AH
motorcycle battery standing by. However, Sunday was clear and sunny, so
we carefully positioned the panels to catch the most rays. We had so
much spare capacity that around 8:00 AM we decided to increase our power
to 100 watts, and operated at that level for the duration.

Before the FD started, our battery voltage as measured by a Fluke DMM
was 12.68V. By 2:00 PM Sunday, the voltage had dropped to only 12.00V.

We have decided to make our future Field Days 100% solar. We're planning to buy an additional marine battery and some more solar panels. The great thing about this approach is that there's no recurring costs...no gasoline or oil and maintenance costs are minimal (i.e. check battery water periodically). Yes, large batteries and solar panels are not cheap, but the cost is actually about the same as a 500 watt gas generator. It's also a lot quieter!

* You don't have to feed an antenna with coax! Our main FD antenna was a 80M Zepp dipole fed with 300 ohm twin-lead. Performance was outstanding! I have no scientific evidence, but I think it worked better than the G5RV antennas we had previously used.

* QRP works! We were late in setting up for FD, so to get *something* on the air by 2:00 PM EDST, we connected an HW-9 to a gel-cell and a 40M dipole and operated that while the rest of us set up the Zepp and the IC-751A. By the time we were done setting up the high-powered station, the QRP operator (WB3CAI) had completely filled up a log page! I was tempted to operate the rest of the contest as a QRP entry, but our club consists of many new hams, and they don't yet have the skill to operate QRP during a contest. I think it's important to show new hams how easy it is to make lots of contacts during FD...they can acquire a taste for QRPing later.

Just for the record, our final totals were over 450 contacts, approximately 300 of them CW. Next year's FD can't get here soon enough!

73,
Harry Bloomberg WA3TBL
hpb+@pitt.edu

Date: (null)
From: (null)
Fifteen Alpha...gee our club scrapes just to get 2 transmitters out for FD. And we shut the generators down and go to bed around midnight due to lack of operators. I'd like to see an operation like yours. Just how do you organize 15 transmitters and 15 antennas within the bands and, what, 1000 ft?

--Ed WX4S

Date: Fri, 2 Jul 93 18:51:55 GMT
From: mnemosyne.cs.du.edu!nyx!jmaynard@uunet.uu.net
To: info-hams@ucsd.edu

References <1993Jun30.103813@iastate.edu>,
<1993Jul11.062117.20121@afterlife.ncsc.mil>, <C9I3I9.1vL@odin.corp.sgi.com>ne.cs.
Subject : Re: The one black spot on my Field Day (longish)

In article <C9I3I9.1vL@odin.corp.sgi.com> adams@chuck.dallas.sgi.com (Charles Adams) writes:

>the working rate for cw should be more than 45 per hour.

Well, I feel better...I was running about that at one point.

>on cw, send your entire call during the contest.

I'm not 100% sure about this...but I can see the argument, especially if you have a long call. We were using N5TM this year. I thought it would be a nice call, but more than once I got aced out by someone with a longer call: the other station would give the other guy's suffix and proceed to work him. I got to where I'd stick in our call twice sometimes. Next year, I may agitate to go back to using my call...

I think I may get wound up for doing a serious SS this year, too, now that I have a keyer I can use. :-)

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"If my car ran OS/2, it'd be there by now" -- bumper sticker

End of Info-Hams Digest V93 #813
